

Recovery Plan Action Status

Plan Name: Final Revised Recovery Plan for the Laysan Duck (*Anas laysanensis*)

Plan Status: Final Revision 1

Plan Date: 22-Sep-09

Lead Agency: USFWS

Lead Office: Pacific Islands Fish And Wildlife Office

(408)

(792-9400)

| Species | Action Priority # | Action # | Action Description | Action Status | Est. Initiation Date | Est. Completion Date | Responsible Parties | Work Type | Labor Type | Action Comments |
|---|-------------------|----------|--|--------------------|----------------------|----------------------|---|--|--------------------------------------|---|
| Laysan duck (<i>Anas laysanensis</i>) | 2 | 1.1..3 | Fresh water seep restoration and maintenance | Not Started | | | Ducks Unlimited, U.S. Fish and Wildlife Service, U.S. Geological Survey, Water Resources Division | Management: Habitat Maintenance and Manipulation | Contract, Internal Field Assistance | |
| Laysan duck (<i>Anas laysanensis</i>) | 2 | 1.1.1 | Control and monitor weeds and restore native vegetation on Laysan | Ongoing Current | Prior to FY 1995 | | U.S. Fish and Wildlife Service | Management: Habitat Maintenance and Manipulation | Contract, Internal Field Assistance | |
| Laysan duck (<i>Anas laysanensis</i>) | 2 | 1.1.2 | Control and monitor invasive invertebrates and restore natives on Laysan | Partially Complete | Prior to FY 1995 | | U.S. Fish and Wildlife Service | Management: Habitat Maintenance and Manipulation | Internal Field Assistance, Volunteer | |
| Laysan duck (<i>Anas laysanensis</i>) | 3 | 1.1.4 | Monitor impacts of Refuge and Monument management activities on Laysan ducks | Not Started | | | U.S. Fish and Wildlife Service | Research: Habitat Status, Research: Management Techniques, Research: Population Assessment | Internal Field Assistance | |
| Laysan duck (<i>Anas laysanensis</i>) | 2 | 1.2.1 | Population and reproductive monitoring | Ongoing Current | FY 2008 | | U.S. Fish and Wildlife Service, U.S. Geological Survey, Biological Resources Discipline | Research: Population Surveys | Internal Field Assistance | Population monitoring has continued at Midway, with a USGS publication in 2008 and a FWS-funded project to develop specific monitoring recommendations recently completed by USGS. These recommendations will be considered for implementation by Refuge staff at Midway. Population and other monitoring data have been collected by Refuge staff each year at Laysan as well, but not been analyzed since 2007. |

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| Laysan duck (Anas laysanensis) | 2 | 1.2.2. | Disease screening and prevention | Ongoing Current | FY 2010 | | U.S. Fish and Wildlife Service, National Wildlife Health Research Center, U.S. Geological Survey, Biological Resources Discipline | Management: Disease Control | Internal Field Assistance, Volunteer | In the wake of a major botulism outbreak in the Laysan duck population at Midway in August, 2008, Midway Atoll NWR instituted habitat management and carcass searches to reduce the likelihood of as severe an outbreak in the future. Although some mortality from botulism continues, management so far apparently has alleviated the risk of another major die-off. |
| Laysan duck (Anas laysanensis) | 2 | 1.2.3 | Train Laysan and Midway field crews in survey methods | Ongoing Current | FY 1995 - FY 1999 | | U.S. Fish and Wildlife Service | Research: Population Surveys | Internal Technical Assistance | |
| Laysan duck (Anas laysanensis) | 1 | 1.3 | Develop emergency contingency plans | Ongoing Current | FY 1995 - FY 1999 | | U.S. Fish and Wildlife Service, Contractor | Management: General | Internal Technical Assistance | cattle egrets showed up in 2002, so eradicated with depredation permit; rats eradicated in 1997; some plans for future possible outbreaks in place |
| Laysan duck (Anas laysanensis) | 2 | 1.4 | Conduct research on Laysan duck population parameters, genetics, and disease susceptibility | Ongoing Current | Prior to FY 1995 | | Research Institutions, U.S. Geological Survey, Biological Resources Discipline | Research: Disease, Research: Genetics, Research: Population Surveys | Internal Technical Assistance, Species Expert | initiation date reflects Warner study (1963) on LADU history & ecology, but research is ongoing. Publication of research on population parameters has continued. Blood samples have been collected but currently there is no proposal or funding for genetic analysis. |
| Laysan duck (Anas laysanensis) | 2 | 2.1 | Complete site assessment and prioritize translocation sites | Complete | FY 2000 - FY 2004 | FY 2000 - FY 2004 | U.S. Fish and Wildlife Service | Management: Planning, Management: Reintroduction | Contract, Graduate Student, Internal Technical Assistance, Species Expert | |

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| Laysan duck (Anas laysanensis) | 3 | 2.1.1 | Develop management plans for individual translocation sites | Partially Complete | FY 2000 - FY 2004 | | U.S. Fish and Wildlife Service, U.S. Geological Survey, Biological Resources Discipline | Management: Planning, Management: Reintroduction | Internal Technical Assistance, Species Expert | |
| Laysan duck (Anas laysanensis) | 2 | 2.2 | Restore and/or create habitats on NWHI that are potential translocation sites (e.g., Lisianski Island, Kure Atoll) | Partially Complete | FY 2007 | | Hawaii Department of Land and Natural Resources, Ducks Unlimited, U.S. Fish and Wildlife Service, Contractor | Management: Habitat Maintenance and Manipulation | Contract, Internal Field Assistance, Internal Technical Assistance | Hydrologic assessment conducted at Lisianski island to determine potential for wetland restoration. Restoration complete at Midway, but requires ongoing management (e.g., removal of Verbesina & native plant outplanting). Greenhouse built in 1997, but 2003 when wetlands created. |
| Laysan duck (Anas laysanensis) | 2 | 2.3.1 | Control predators at potential MHI translocation sites (e.g., Kaho'olawe Island, Hanalei NWR, Kaua'i) | Not Started | | | Hawaii Department of Land and Natural Resources, U.S. Fish and Wildlife Service, Contractor, Kaho'olawe Island Reserve Commission | Management: Predator and Competitor Control | Contract, Internal Field Assistance, Internal Technical Assistance | |
| Laysan duck (Anas laysanensis) | 3 | 2.3.2 | Control alien species (e.g., weedy plants, feral mallards) at MHI translocation sites | Not Started | | | Hawaii Department of Land and Natural Resources, U.S. Fish and Wildlife Service, Kaho'olawe Island Reserve Commission | Management: Habitat Maintenance and Manipulation, Management: Predator and Competitor Control | Internal Field Assistance, Volunteer | |
| Laysan duck (Anas laysanensis) | 2 | 2.4 | Conduct translocations within NWHI: set up holding facilities, charter transportation, select monitor, and capture fledged juveniles (on Laysan), screen for disease, acclimate and release at new site | Partially Complete | FY 2000 - FY 2004 | | U.S. Fish and Wildlife Service, Contractor, U.S. Geological Survey, Biological Resources Discipline | Management: Disease Control, Management: General, Management: Habitat Maintenance and Manipulation, Management: Reintroduction, Research: Population Surveys, Research: Reintroduction | Contract, Internal Field Assistance, Volunteer | First holding facility set up in Sep 2004; second holding facility set up July 2005 on Eastern. Capture, screening, and release completed for first 2 translocations in 2005 and population established at Midway Atoll; future translocations also needed. |

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| Laysan duck (Anas laysanensis) | 2 | 2.5 | Conduct intensive post-release monitoring of translocated ducks | Ongoing Current | FY 2008 | | Research Institutions, U.S. Fish and Wildlife Service, U.S. Geological Survey, Biological Resources Discipline | Management: Reintroduction, Research: Population Surveys, Research: Reintroduction | Internal Field Assistance, Volunteer | Post-release monitoring was continued at Midway through early 2010 by USGS with USFWS recovery funds. USGS produced a set of recommendations for monitoring by NWRS staff. |
| Laysan duck (Anas laysanensis) | 3 | 2.6 | Conduct immigration translocations if necessary | Not Started | | | Research Institutions, U.S. Fish and Wildlife Service, U.S. Geological Survey, Biological Resources Discipline | Management: Reintroduction, Research: Genetics, Research: Reintroduction | Contract, Internal Field Assistance | The Midway population grew very rapidly subsequent to translocations and shown itself resilient and self-sustaining in the wake of a major die-off (from botulism) in 2008. There are no signs of inbreeding depression in this population at this time - monitoring needs to be continued. Immigration translocations are deemed unnecessary now for the Midway duck population. |
| Laysan duck (Anas laysanensis) | 3 | 2.7 | Build and analyze new population viability models that include data from Midway and other new populations | Not Started | | | Research Institutions, U.S. Fish and Wildlife Service, U.S. Geological Survey, Biological Resources Discipline | Research: Population Assessment | Contract, Species Expert | |
| Laysan duck (Anas laysanensis) | 3 | 2.8 | Release Laysan ducks (includes intensive post-release monitoring) at MHI sites (e.g., Kaho'olawe and Kaua'i) | Not Started | | | Research Institutions, U.S. Fish and Wildlife Service, U.S. Geological Survey, Biological Resources Discipline | Management: Reintroduction | Contract, Internal Field Assistance | |

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| Laysan duck (Anas laysanensis) | 3 | 2.9 | Hire or contract Laysan duck recovery implementation coordinator | Partially Complete | FY 2000 - FY 2004 | | U.S. Fish and Wildlife Service, U.S. Geological Survey, Biological Resources Discipline | Management: General, Research: General | Contract | |
| Laysan duck (Anas laysanensis) | 3 | 3 | Develop captive propagation program, incl. planning, facility development, and staff | Not Started | | | Contractor | Management: Propagation, Management: Reintroduction | Internal Technical Assistance | Captive propagation is not deemed necessary at this time. |
| Laysan duck (Anas laysanensis) | 3 | 4.1 | Conduct public outreach for reintroduction of Laysan ducks to MHI | Ongoing Current | FY 2005 | | Hawaii Department of Land and Natural Resources, U.S. Fish and Wildlife Service | Other: Information and Education | Internal Technical Assistance | |
| Laysan duck (Anas laysanensis) | 3 | 4.2 | Create interpretive exhibit using captive Laysan ducks | Not Started | | | Contractor | Other: Information and Education | Contract | |
| Laysan duck (Anas laysanensis) | 3 | 5 | Update recovery plan | Ongoing Current | FY 2000 - FY 2004 | | U.S. Fish and Wildlife Service | Management: Planning | Contract | |